

SECTION B-B

NOTES:  
1. THIS IS A UHV PART. ELECTROPOLISHING IS NEEDED BEFORE WELDING. PRIOR TO ELECTROPOLISHING, THE PART NEEDS TO GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING AND DRY NITROGEN BLOW DOWN.

2. CHAMBER ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2 X 10<sup>-10</sup> STANDARD CC/SEC PER LEAK METER DIVISION, SUCH AS  
ALCATEL SAM-110TCL  
Du PONT CEC 24-120B  
VARIAN MS-9, MS-90 OR MS-18

CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.

FINAL TEST WILL CONSIST OF SURROUNDING THE CHAMBER (BAGGING) WITH HELIUM. THE CHAMBER WILL BE REJECTED IF A 2% DEFLECTION ON THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.

3. KEEP THE PART CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.

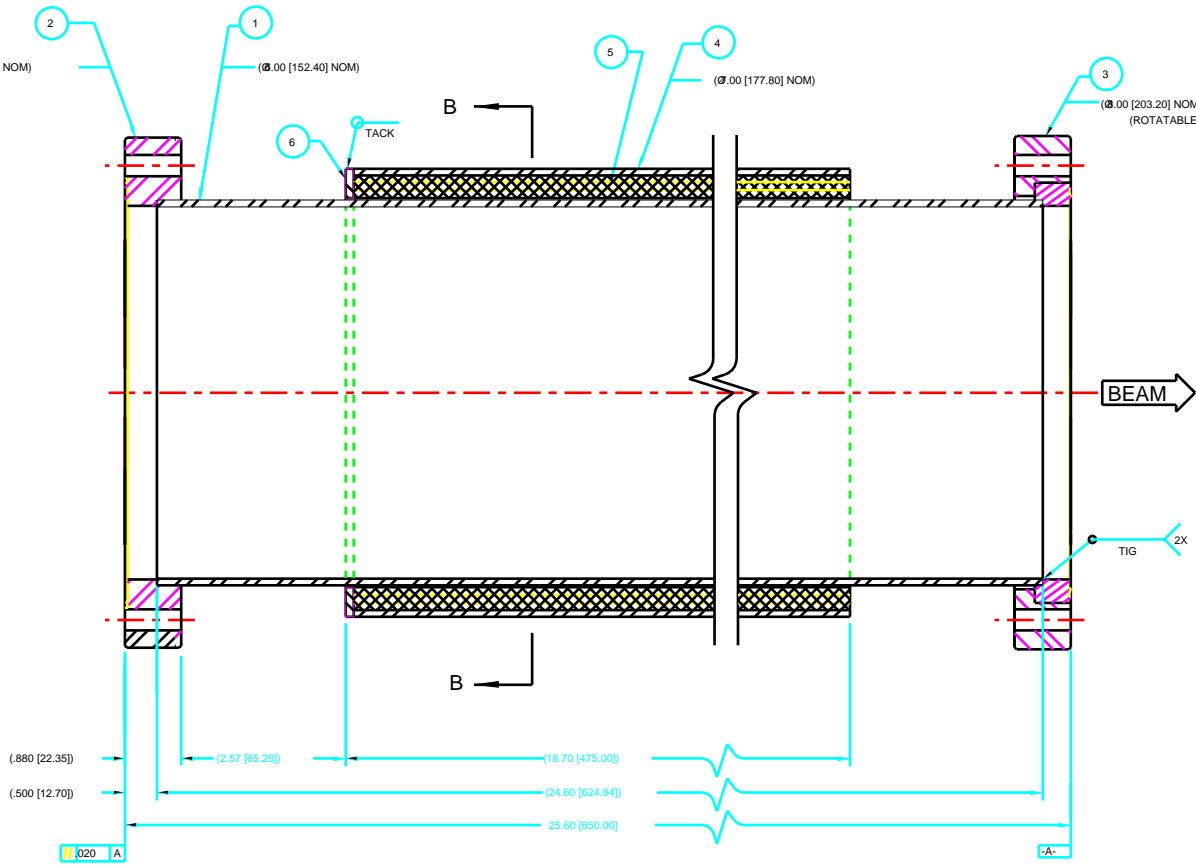
4. DIMENSIONS IN [ ] ARE MILLIMETERS

5. SHIELDED CAN SHALL BE TO SLIDE FREELY

6. THIS UHV PART MUST BE BAKEABLE TO 170° C.

ASSEMBLY PROCEDURE:

1. WELD 7.0" TUBE (ITEM 1) TO 8.0" FLANGE (ITEM 2)
2. SLIDE SHIELDED CAN IN PLACE -  
[ WELD 7.0" TUBE (ITEM 4) TO END PLATE (ITEM 6)  
AND INSERT LEAD COIL (ITEM 5) ].
3. WELD 6.0" TUBE (ITEM 1) TO 8.0" FLANGE (ITEM 3).



SECTION A-A

LOG NO.	ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
A2301100	6	P4105090602-320202-00	U2 TRANSITION PIPE 2-BM-B, END PLATE	304 SS	1
A2301300	5	P4105090602-320101-00	U2 TRANSITION PIPE 1-BM-C, LEAD COIL	LEAD GRADE "C"	1
	4		TUBING 7.00(177.80) O.D. x .125 (3.175) WALL	304 SS	1
	3		FLANGE ROTATABLE: 8" O.D. MDC# 100031	304 SS	1
	2		FLANGE NONROTATABLE: 8" O.D. MDC# 110031	304 SS	1
	1		TUBING 6.00(152.40) O.D. x .125 (3.175) WALL	304 SS	1

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES TOLERANCES: X .125 (3.175) .005 (0.127) X .062 (1.575) .002 (0.051) X .031 (0.787) .001 (0.025) X .015 (0.381) .0005 (0.0127) SURFACE ROUGHNESS 125/ REMOVE ALL BURRS AND BREAK SHARP EDGES (RADIUS) SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1 DIMENSIONS & TOLERANCES IN ACCORDANCE WITH LATEST ANSI Y14.5		LOG NUMBER <b>A2301200</b> DRAWN BY <b>CORCUERA</b> DATE <b>7/11/95</b> DESIGNED BY <b>T. SANCHEZ</b> DATE <b>7/11/95</b> DESIGNER <b>SANCHEZ/CORCUERA</b> RESPONSIBLE ENGINEER <b>T. SANCHEZ</b> DATE <b>7/11/95</b> APPROVED/RELEASED	THIS DRAWING IS THE PROPERTY OF <b>ARGONNE NATIONAL LABORATORY</b> PROJECT MGR. SCALE <b>1=1</b> SHEET <b>1 of 1</b>		TITLE <b>ADVANCED PHOTON SOURCE</b> U2 TRANSITION PIPE 1-BM-C ASSEMBLY DRAWING NUMBER <b>P4105090602-320100-00</b>
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